

Heavy-Lift 3rd Gen Mid-Air Retrieval

Completed Technology Project (2015 - 2016)



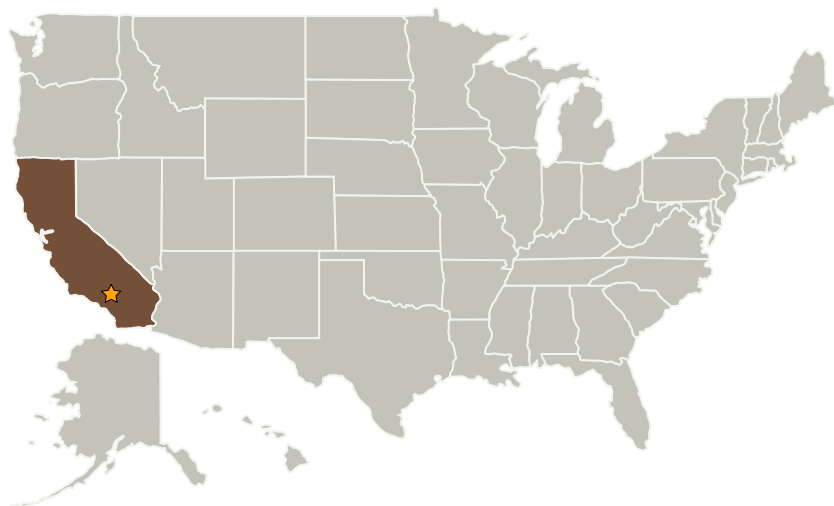
Project Introduction

Perform a feasibility study that encompasses: 1) Aero-Mechanical System Study for Heavy-Lift MAR, 2) Reference Mission CONOPS Study, 3) Optimal Guidance & Navigation Systems Study

Anticipated Benefits

Retrieve discarded parts from launch systems (e.g. 1st and 2nd stages, payload fairings) retrieve capsules in mid-air.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Armstrong Flight Research Center(AFRC)	Lead Organization	NASA Center	Edwards, California

Primary U.S. Work Locations

California

Project Website:

<https://www.nasa.gov/directorates/spacetech/home/index.html>



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Armstrong Flight Research Center (AFRC)

Responsible Program:

Center Innovation Fund: AFRC CIF

Project Management

Program Director:

Michael R Lapointe

Program Manager:

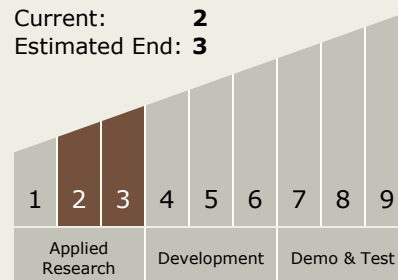
David F Voracek

Principal Investigator:

John Kelly

Technology Maturity (TRL)

Start: 2
Current: 2
Estimated End: 3



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Technology Areas

Primary:

- TX09 Entry, Descent, and Landing
 - └ TX09.4 Vehicle Systems
 - └ TX09.4.1 Architecture Design and Analysis